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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,957	10/26/2001	Chris Ryan	000244	7049

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EXAMINER	
PHILLIPS, HASSAN A	

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 11/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/032,957	RYAN, CHRIS	
	Examiner	Art Unit	
	Hassan Phillips	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to communications filed August 30, 2006.

Drawings

2. After consideration of the amendments made to the drawings to use reference character "260" to designate the "DMA CONTROLLER", examiner has withdrawn the objection to the drawings.

Specification

3. Examiner has received and considered the amendments to the specification. Examiner agrees no new matter was added and the amendments are proper since the term "Controller" was only added to make the detailed description align with the nomenclature used in the drawing sheets.

Response to Arguments

4. Applicant's arguments, see remarks pages 5-8, filed August 30, 2006, with respect to the rejection(s) of claim(s) 1-3 under U.S.C. 102(e), and claim(s) 1-12 under U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Khan, and newly cited ref. Nguyen et al. (hereinafter Nguyen) U.S. Patent 6,920,572.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being obvious over Khan et al. (hereinafter Khan), U.S. Patent 6,754,509..

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

7. In considering claim 1, Khan discloses a system for partitioning and loading data in a low-powered communication device, the system comprising: a general computing subsystem (104), (col. 4, lines 27-53), a modem computing subsystem (102), (col. 4, lines 27-53); a clock, (col. 5, lines 21-53); and a shared memory module for receiving a binary data, wherein the shared memory module may be accessed by the general computing subsystem and the modem computing subsystem independently, (col. 4, line 54-col. 5, line 53).

Although the teachings of Khan disclose substantial features of the claimed invention, they fail to expressly disclose: the general computing subsystem selectively activates the clock to the shared memory module to permit use of the shared memory module by the modem computing subsystem.

Nevertheless, Khan further discloses: the general computing subsystem selectively activating the clock to the shared memory module (i.e. waking up shared memory), (col. 7, line 42-64).

Thus, it would have been readily apparent to one of ordinary skill in the art that the teachings of Khan provide a means for the general computing subsystem to selectively activate the clock to the shared memory module to permit use of the shared memory module by the modem computing subsystem. This would occur in cases where the modem computing subsystem accesses the shared memory module after the shared memory module has been woken by the general computing subsystem, (col. 7, line 42-64).

8. In considering claim 2, Khan discloses the modem computing subsystem controls data processing in accordance with wireless communication protocols, (col. 4, lines 27-53).

9. In considering claim 3, Khan discloses the modem computing subsystem further comprising a mobile station wireless modem, (col. 4, lines 27-53).

10. Claims 1-12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Guterman, U.S. Patent Pub. No. 2003/0008690, in view of Nguyen.

11. In considering claim 1 , Guterman discloses a system for partitioning and loading data in a low-powered communication device, the system comprising: a general computing subsystem (24), (page 1, paragraph 15); a modem computing subsystem (12), (page 1, paragraph 15); and a shared memory module for receiving a binary data, wherein the shared memory module may be accessed by the general computing subsystem and the modem computing subsystem independently, (page 1 , paragraph 16).

Although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: a clock, and the general computing subsystem selectively activating the clock to the shared memory module to permit use of the shared memory module by the modem computing subsystem.

Nevertheless, in a similar field of endeavor Nguyen teaches a clock (SHARED CLK), and a general computing subsystem (110, 120) selectively activating the clock to a shared memory module (132), (col. 2, lines 50-67, and col. 7, lines 10-21). It would have been readily apparent to one of ordinary skill in the art that the teachings of Nguyen provide a means for the general computing subsystem to selectively activate the clock to the shared memory module to permit use of the shared memory module by the alternate computing subsystem (110, 120). This would occur in cases where the alternate computing subsystem accesses the shared memory module after the shared memory module has been first activated by the general computing subsystem.

Thus, if not implicit in the teachings of Guterman, given the teachings of Nguyen it would have been obvious to one of ordinary skill in the art to modify the teachings of Guterman to disclose a clock, and the general computing subsystem selectively activating the clock to the shared memory module to permit use of the shared memory module by the modem computing subsystem. This would have advantageously provided a power saving system by preserving the use of the shared memory clock until needed by one of the computing subsystems (Nguyen, col. 1, lines 19-24, and line 49-col. 2, line 9).

12. In considering claim 2, Guterman discloses the modem computing subsystem controls data processing in accordance with wireless communication protocols, (page 1, paragraph 15).

13. In considering claim 3, Guterman discloses the modem computing subsystem further comprising a mobile station wireless modem, (page 1, paragraph 15).

14. In considering claim 4, although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: the general computing subsystem further comprising a nonvolatile memory that stores information for generating the data.

Nevertheless, general computing subsystems comprising nonvolatile memory that stores information for generating data was well known in the art at the time of the present invention. Nguyen further discloses the general computing subsystems comprising nonvolatile memory (12, 22) that store information for generating data, (col. 4, lines 6-9).

Thus, if not implicit in the teachings of Guterman, given the teachings of Nguyen it would have been obvious to one of ordinary skill in the art to modify the teachings of Guterman to disclose the general computing subsystem further comprising a nonvolatile memory that stores information for generating the data. This would have advantageously provided a memory that could be used to store information to "boot up" or initialize the subsystems, (Nguyen, col. 4, lines 6-9).

15. In considering claim 5, it is implicit in the teachings of Guterman that the general computing subsystem loads the data into the shared memory module, (page 1, paragraph 16).

16. In considering claim 6, the combined teachings of Guterman and Nguyen provide a means for the general computing subsystem to generate the data from compressed information stored in the nonvolatile memory, (Guterman, page 1 , paragraph 16, Nguyen, col. 4, lines 6-9). One of ordinary skill in the art would combine the teachings of Guterman with Nguyen for reasons previously indicated.

17. In considering claim 7, Guterman discloses a portable wireless communication device, the device comprising: a memory (14), (page 1, paragraph 16); a general computing subsystem (24) having access to the memory, (page 1, paragraph 15); a modem computing subsystem (12), (page 1, paragraph 15); and a first shared memory module for receiving a binary data, wherein the shared memory module may be accessed by the general computing subsystem and the modem computing subsystem independently, (page 1, paragraph 16).

Although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: the memory being nonvolatile, and the first shared memory module being selectively enabled and disabled by the general computing subsystem, and wherein a first binary image is loaded in the first shared memory module from the nonvolatile memory by the general computing subsystem when selectively enabled.

Nevertheless, in a similar field of endeavor Nguyen discloses a general computing subsystem (110, 120) comprising nonvolatile memory (12, 22), (col. 4, lines

6-9). Nguyen also teaches the general computing subsystem selectively enabling and disabling a shared memory module (132), (col. 2, lines 50-67, and col. 7, lines 10-21). The teachings of Nguyen further imply a first binary image may be loaded in the first shared memory module from the nonvolatile memory by the general computing subsystem when selectively enabled, (col. 3, line 9-22, col. 4, lines 6-9, and lines 23-26, and col. 7, lines 10-21).

Thus, if not implicit in the teachings of Guterman, given the teachings of Nguyen it would have been obvious to one of ordinary skill in the art to modify the teachings of Guterman to disclose the memory being nonvolatile, and the first shared memory module being selectively enabled and disabled by the general computing subsystem, and wherein a first binary image is loaded in the first shared memory module from the nonvolatile memory by the general computing subsystem when selectively enabled. This would have advantageously provided a memory that could be used to store information to "boot up" or initialize the subsystems, (Nguyen, col. 4, lines 6-9). This also would have advantageously provided a power saving system by preserving the use of the shared memory clock until needed by one of the computing subsystems (Nguyen, col. 1, lines 19-24, and line 49-col. 2, line 9).

18. In considering claim 8, the teachings of Guterman provide a means for the first binary memory image comprising mobile station code sufficient to permit the modem computing subsystem to establish a wireless communication link and monitor a paging channel, (page 1, paragraph 15).

19. In considering claim 9, the teaching's of Guterman provide a means for the modem computing subsystem and the first shared memory to be enabled when the computing subsystem starts to monitor the paging channel, and the modem computing subsystem and the first shared memory module are disabled when not engaged in wireless communications, (page 1, paragraph 15-page 2, paragraph 23).

20. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guterman in view of Nguyen, and further in view of Bays et al. (hereinafter Bays), U.S. Patent 6,965,974.

21. In considering claim 10, although the teachings of Guterman disclose substantial features of the claimed invention, they fail to expressly disclose: a second shared memory.

Nevertheless, multiple shared memories were well known in the art at the time of the present invention. In the background teachings of Bays it is disclosed that it was well known to have multiple shared memories , (col. 2, line 57-col. 3, line 4).

Thus, it would have been obvious to one of ordinary skill in the art to further modify the teachings of Guterman to disclose a second shared memory module, wherein the second shared memory module is independently accessible by the general computing subsystem and the modem computing subsystem, wherein the second shared memory module can be disabled by the general computing subsystem to save

power, and wherein a second binary image is loaded in the second shared memory module from the nonvolatile memory by the general computing subsystem. This would have advantageously provided additional memory that could be used store information for the subsystems, (Nguyen, col. 4, lines 6-9; Bays, col. 2, line 57-col. 3, line 4).

22. In considering claim 11, the combined teachings of Guterman Nguyen, and Bays provide a means for the second binary memory image to contain the mobile station modem code sufficient to operate a traffic channel, (Guterman, page 1, paragraph 15; Nguyen, col. 4, lines 6-9; Bays, col. 2, line 57-col. 3, line 4). One of ordinary skill in the art would combine the teachings of Guterman with Nguyen and Bays for reasons previously indicated.

23. In considering claim 12, the combined teachings of Guterman Nguyen, and Bays provide a means for the second shared memory module to be activated when the modem computing subsystem operates a traffic channel, and the second memory module to be deactivated to save power when ceasing to operate the traffic channel, (Guterman, page 1, paragraph 15-page 2, paragraph 23, Nguyen, col. 4, lines 6-9; Bays, col. 2, line 57-col. 3, line 4). One of ordinary skill in the ad would combine the teachings of Guterman with Nguyen and Bays for reasons previously indicated.

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is 571-272-3940. The examiner can normally be reached on Mon-Fri (8am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HP/
11/1/06

KRISNA LIM
PRIMARY EXAMINER